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*by* Diana Hertati

# DEVELOPMENT OF WEB-BASED JOB PERFORMANCE ASSESSMENT SYSTEM OF LOCAL GOVERNMENT IN INDONESIA

**Nurhadi,**

Department of Business Administration,
University of Pembangunan Nasional
Veteran Jawa Timur, Indonesia

**Diana Hertati,**

Department of Public Administration,
University of Pembangunan Nasional
Veteran Jawa Timur, Indonesia

## ABSTRACT

*Reforms in the field of employment in Indonesia become an important pillar in the organization of the wheels of government, but at the level of implementation has not deliver results in line with expectations. The subjectivity in the evaluation of job performance is almost inevitable. The management and employees need regular performance appraisal process, and quickly, so as to provide feedback and rapid improvement in the working environment. Transparency of the assessment process can usually be a positive effect on improvement of employee motivation. For that we need a research on development of system of Web-based job performance evaluation prototype at the district and city in East Java Indonesia. The research location is the city government of Surabaya, Mojokerto and Sidoarjo Indonesia. The methods of collecting data are using interviews and focused group discussion. Data analysis was conducted using qualitative analysis. The results showed that the development of a system of web-based job performance evaluation prototype on city and district governments in East Java is done through six stages as follows; a) Identification and analysis of user requirements, b) Quick Design, c) Building prototype, d) Evaluation by Users, e)) The Refinement of the system prototype, f) Launching system prototype.*

*Keywords: development, prototype, web-based job performance assessment.*

## Introduction:

Information technology plays an important role in bringing a change in behavior that enables people to finish the job. Information technology is any form of technology applied to process and transmit information in electronic form (Lucas, 1992). Use of information technology at this time become a demand and need in each activity.

Human resources is an important factor affecting the quality of government services to the community organizations in addition to information technology. The quality of public services can be supported by qualified human resources. The quality of human resources in governmental organizations is one of which can be seen through a performance given to the organization in providing superior service to the community.

The reforms in the field of employment in Indonesia become an important pillar in the organization of the wheels of government, but at the level of implementation has not deliver results in line with expectations. A survey conducted by the Web Economy Forum on Global Competitiveness Index shows that the inefficiency of government bureaucracy is still one of the top five sources of the problems faced in the conduct of business in Indonesia. The main problem becomes a major factor inhibiting the conduct of business in Indonesia s shown in the following table:

**Table 1. The Most Problematic Factor for Doing Business in Indonesia**

| No | Problematic Factors for Doing Business | Score |
|----|------------------------------------------|-------|
| 1  | Corruption                               | 15,7  |
| 2  | Access to Financing                      | 10,6  |
| 3  | Inflation                                | 9,5   |
| 4  | Inefficiency Government Bureaucracy      | 8,3   |
| 5  | Inadequate supply of infrastructure      | 7,5   |
| 6  | Policy instability                       | 6,9   |
| 7  | Foreign currency regulations             | 5,9   |
| 8  | Poor work ethic in national labor force  | 5,3   |
| 9  | Tax rates                                | 5,3   |
| 10 | Government instability/coups             | 5,2   |

**Source:** WEF Global Competitiveness Report 2014-2015 (Schwab, et. al, 2014)

The problem of subjectivity in the assessment of employee performance is almost inevitable. The management and employees need regular performance appraisal process, and quickly, so as to provide up turning and rapid improvement in the working environment. Transparency of the assessment process can usually be a positive effect on improvement of employee motivation (Sri Setyowati: 2013). In today's digital era of information technology provides an alternative for public organizations and businesses to assist in the implementation of the organization, including through the use of Web-based performance appraisal system.

Based on the above phenomenon, to reduce the sense of injustice in additional revenue of employee income and to realize the compensation function as a tool to increase the motivation of employees, research is needed on the system development employee performance evaluation based on Web to support the compensation system at the district and city in East Java.

## Literature Review:

### Assesment of Job Performance

According to Dessler (1997) assessment of achievement of performance is a performance appraisal process of job performance is conducted systematically corporate leaders based on the work assigned to him. According to Handoko (2011) assessment of performance achievement is the process of evaluating and assessing employee performance. This activity can improve personnel decisions and provide feedback to employees about their operations. Stoner (2006) states that assessment of performance achievement is a process that includes : (1) the standard-setting work performance; (2) an assessment of the actual work performance of employees in relation to these standards; and (3) provide feedback to employees with the aim of motivating the person to eliminate deterioration of performance.

### Dimension of Performance:

In relation to the dimensions of work Gomes (2003) expand the dimensions of employee performance is based on :

a. Quantity of work ; amount of work done within a specified time period .
b. Quality of work ; quality of work under the terms of suitability and readiness .
c. Job knowledge ; breadth of knowledge on employment and skills.
d. Creativeness ; Authenticity ideas raised and measures to resolve the problems that arise .
e. Cooperation; faithfulness to cooperate with others
f. Dependability ; awareness and trust in terms of attendance and completion of works
g. Initiative ; passion to perform new tasks and to enlarge its responsibilities .

h. Personal qualities ; concerning personality , leadership , hospitality , and personal integrity.

## Measurement of Job Performance:

According to Bayo - Moriones (2011 ) are at least three dimensions that must be considered in employee performance measurement systems, namely :

### a. Measure of Job Performance:

Job performance can be evaluated based on various criteria. In one hand, the performance of employees may be determined based on objective measures. These sizes can be observed directly by someone who conduct performance appraisals and employee assessed. As a consequence, the application of objective measures to simplify bears a performance assessment through the standardization process. This in turn can lead to feelings of justice because the parameters are considered well known to the employees. But not always possible to be able to assess the performance of employees based on objective measures. Performance of employees may consist of a variety of different jobs, and it may be difficult to assess the employee's performance based solely on objective measures. When an employee carrying out several different jobs and he judged based on certain objective criteria (eg output) then the employee encouraged only to generate performance based on these measures, and this can cause problems mismatch of incentives. On the other hand, employee performance evaluation can be determined using a subjective measure based on considerations assessors. Performance assessment based on this subjective measure could provide the flexibility of the assessment system, as it allows to adjust to the process of evaluation of the complexity of a particular job.

### b. Wo Assess The Performace:

When we designed the employee performance appraisal system, the issue of who will carry out the assessment is a very important thing. The direct supervisor is often the person doing the assessment of employee performance, unless the leadership on the upper level again can assess the performance better. In organizations with Human Resources management framework that formal performance assessment can be done by someone from the department of Human Resource Management. In some situations, subordinate co-workers and users of the service can provide very useful information about certain aspects of employee performance. For example subordinates have observed an important position in leadership skills, peers may be able to assess interpersonal relationships, and users can rate the quality of services provided.

### c. Frequency of Assessment:

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**Prototype methods in Information Systems Development:**

However the information system is a very complex system structure. The information system is built on a special purpose to support the activities of an organization. Because of the specificity then any system development process requires a framework that is used as a guideline in preparing and monitoring the progress of the system development process at every stage in the development system (Issaia P and Isaaias, 2015).
There are several methods that can be used in the development of information systems. For example, the model Waterfall, Iterative models Waterfall, Spiral Model Prototype and Model. Each system developers will use the model considered most suitable and appropriate for the projects to be developed. However, according Maheswari and Jain (2012) basically any method in the development of the system has activities or basic stages as follows:
a.  Determination of system requirements
b.  System design
c.  Development code / program
d.  The system Testing
A great system can be split into multiple smaller sub-systems. Without ignoring the integration of a large system as a whole, the development of sub-system applications to support specific functions can be done relatively quickly without having to wait the whole system was completed. One model system development is relevant for the purposes of this prototype model, as illustrated in the figure below;
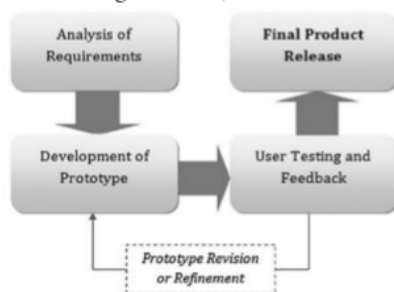


**Figure 1. Model of Prototype Information Systems Development (Issaia and Issaaias, 2015)**

System development cycle using Prototype method according to Carr and Verner (1997) basically includes four stages of activities, namely:
a. Identification and analysis of user needs.
b. Develop prototype
c. Testing and Feedback By Users
d. Release Final System.

When the prototype is implemented, then the user can test and provide feedback directly. If it is deemed necessary to make improvements and changes to the prototype, the prototype will be revised and improved so it would appear that the new prototype and testing will be done again. Stages in the development cycle of these systems will continue to run so that the application of the system in general can be accepted by the user and is considered no more changes of a substantial nature of the system where the application is final and ready to be released.
Prototype method is based on the idea to create the system as a whole or a part of the system as a Pilot Project. This method can be considered as a process that is part of the system development life cycle (System Development Life Cycle) large or central approach to system development cycle. This method aims to develop multiple versions of prototypes and refine continuously with the resulting final application program (Carr and Verner, 1997)
Prototype method according Sabale and Dani (2012) tend to place more emphasis on the creation of an application program with a rather low attention to documentation. This method is considered a user-centric approach, because the user feedback regarded as fundamental in the development of a prototype and the final product from the application program.

**Methodology:**

**Necessary Data:**
This study aims to produce a prototype web-based performance measurement system. In this research study variables defined as follows:
**1.  System Plan**
This variable describes the activities to determine the system development plan to support the achievement of the vision and mission of the organization.
**2.  System Analysis**
This variable portray the real situation and the organization as a portrait of the ideal conditions expected by the organization with regard to the performance measurement system . This variable has two indicators, namely : needs analysis information, the system generates the information
**3.  System Design**
This variable is an activity to make system design of Web -based employee performance evaluation both conceptual and technical design. This variable has three indicators, namely design input process and output design.

**Location and Research Sampling:**

This study took place in the district of Sidoarjo and Mojokerto as the research location. The unit of analysis (samples) in this study was the leader of part of Program Development, Personnel, organization and governance, as well as the Government Finance in Mojokerto and Sidoarjo regency government. In addition it also employees of regional work units (SKPD) in the Government of Mojokerto and Sidoarjo.

**Data Collection Methods:**

Methods of data collection will be done in this study are as follows:
**a. In Depth Interview,**
The method is carried out to analyze information needs, performance measurement procedures as well as making the design input, process and output of a web-based performance measurement system. Interviews were conducted with the involvement of the Head Department for Planning, Personnel, organization and governance, as well as government finance in the city of Surabaya and Mokokerto and Sidoarjo regency government.
**b. Focus Group Discussion**
That is a method to collect data from various experts: academics of information technology, and bureaucrats. The data is comparative to the data of FGD (cross check) with in-depth interviews.

**Data Analysis Method:**

The data obtained will be processed in order to be presented in a form that is easier to read and interpret. The data for this study using qualitative descriptive analysis techniques.

**Results:**

Basically, the development of web based performance measurement systems of city and country governments in the province of East Java is using a prototype approach. In practice between districts have some variation in the application of the prototype approach in accordance with the dynamics that occur contextually. However, in general the process of developing performance assessment systems can be grouped into six stages as following main activities:

1. **Collecting Supplies and repair:** Assigning everything needed for software development
2. **Quick Design:** This phase translate the purposes or data that has been analyzed into a form that is easily understood by the user.
3. **Build Prototype:** Translating the data that has been designed into the programming language
4. **Customer Evaluation Against Prototype:** The program that has been so tested by the customer, and if there are deficiencies in the program could be added.

5. **Refinement of Prototype:** Improvement program that is so, according to customer needs. Then made back program and evaluated by the consumer until all user needs are met.
6. Prototype System. Programs that are already finished and all the user needs is already fullest

One of the advantages of the prototype approach as a method of system development is the prototype of an application, before the application is entering the stage of design and preparation of the application program. In this phase, the prototype has been designed by the developer will be given to the user to obtain an evaluation. This stage will be continually repeated until both parties truly understand the needs of the application to be developed.

One thing that needs to be examined from this approach is that the application development team must have good ability in developing a prototype because this is just the short time frame. Development of the system using a prototype approach is an approach to system development in a very minimal functionality. Schematically stages in the process of developing a prototype system for employee performance assessment web-based is illustrated in Figure 2.
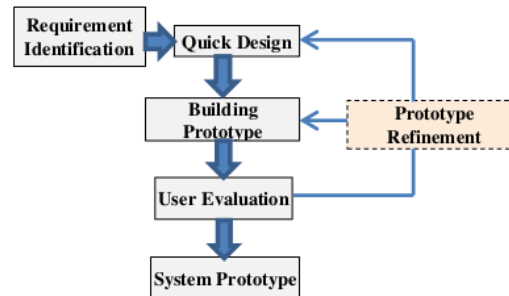


Figure 2: Development Model of Job Web-Based Performance Assesment System

**Discussion:**

Web-based Employee performance evaluation system development done to motivate civil servants to work optimally. With the performance-based allowances, the government hopes that the implementation of government activities can be done well and completed in accordance with the planned deadlines. Employee performance evaluation is a measurement of the performance of the Regional Civil Servants Governments town or district in the province of East Java. Performance is the output/result of the activities/programs to be or have been achieved compared with the predetermined targets.

Performance Assessment in order incentives for welfare of employees is measured by ratings on two things: the Individual Values and Behaviour Working with a weight of 80:20 where the calculations made through the Management Information System Performance with following provisions:

## 1. Individual Performance Score contains of:

a. Individual Performace Score of Process.

Covering aspects of quality, quantity aspect and the aspect of effectiveness. Excluded against common activities, Individual Performance Process Values calculated only on the aspect of quantity

b. Individual Performace Score of Process of Result

The individual performance value is measured by calculating the Annual Individual Performance Target (includes Key Performance Indicators and Employee Performance Indicators).

## 2. Score of Behavioral Performance

Assessment of workplace behavior was assessed through behavioral aspects of work carried out by way of observations carried out by the superior, peer relationships, and subordinates it is determined randomly through a system of performance management information from the Employee concerned in accordance with the following criteria:

1) **Integrity**

It is used to measure employee behavior in terms of honesty, objectivity to the problem, the courage and firmness in decision making and job risk; Commitment Used to measure employee loyalty in contributing to the Organization;

2) **Discipline**

Employees used to measure compliance in complying with the rules, procedures, and policies;

3) **Cooperation**

It is used to measure the ability of cooperation, sharing of tasks and roles with other clerks;

4) **Leadership**

Employees used to measure the ability to be a pioneer and driving force of change in mindset towards the better;

5) **Creativity**

Employees used to measure the ability to give the idea / ideas in developing new working patterns towards a better, faster, and efficient and constantly improve their skills in management methods in the scope of the activities on education, employment and Local Government Units;

6) **Initiative**

Employees used to measure the ability of the ha take advantage of opportunities or find ideas that might emerge in the future;

7) **Achievement motivation**

Employee motivation is used to measure the orientation towards work, mastery and competitiveness;

8) **Orientation of Services**

It is Used to measure employee attitudes and behaviors in providing services to the communities served include, among others, bosses, co-workers, work units, and / or other agencies.

The performance assessment of municipalities in the province of East Java is basically coined the similarity constituent assessment. Nonetheless, there are some differences in conditions between the respective governments city or district government. It mainly deals with the scope factors units of organization and funding. This difference these conditions encourage the need to create a prototype system control web-based employee performance rather loose and flexible, so developers can adjust to system application program with the situation of each condition among local government agencies.

From the other side, the readiness of skilled human resources in developing web -based performance assessment system between local authorities in each city or county is also different. However, in general it can be said that all municipalities and counties have limited expert of information technology. In general, any city government or district government does not have a team with adequate employee performance evaluation information system independently. This prompted the entire city or county government to involve external parties in the system development of web-based employee performance evaluation.

Despite these limitations in the number and quality of experts in the field of information technology, local governments do not need to give system development projects of web-based employee performance evaluation entirely to outsiders. Need to set up a Steering Committee in the development of employee performance assessment system is web-based , consisting of a leader in several major departments in local governments that are technically led by Team Leader who comes from the personnel department or the department in charge of Information Systems . Thus local governments pay enough system development team from outside the organization to assist the development of employee performance evaluation system based on the direction of the internal team. This will be able to save money, while reducing excessive reliance on external parties

In developing the system of web-based employee performance evaluation using a prototype approach these leaders could encourage the involvement of employees / users in the process from the beginning. In terms of effectiveness, the prototype approach in the development of employee performance appraisal system also helps to identify problems more accurately than analysis needs, design and programming activities. This is because the prototype approach make it possible for users early on to give an idea of the final system of users ( Mishari and Jain : 2012)

Development of the system using a prototype approach could be potentially cause problems for the users of the system if the process is no good interaction between the development team with the users system. Precisely system developed based on the prototype approach is highly suited to support the development of employee performance appraisal system the municipality or district in East Java, which

still continue to improve and trying to adapt to the changing circumstances of the organization. Therefore , to avoid the potential problems associated with the design and maintenance of system development using a prototype approach needs to carefully define the purpose and scope of the prototype

**Conclusions:**

Prototype approach is one method of system development testing to clarify the needs of the system or to uncover the critical consideration. Prototype approach can provide benefits for both developers and users to test the system to ensure that the system has to meet the needs of users.

In developing the system of web-based employee performance evaluation using a prototype approach these leaders could encourage the involvement of employees / users in the process from the beginning. In terms of effectiveness, the prototype approach in the development of employee performance appraisal system also helps to identify problems more accurately than analysis needs, design and programming activities.

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